

In many cases the type of information required will be apparent from the nature of the proposed beneficial use. When in doubt, the applicant may want to contact the solid waste section chief in the regional office where the application will be submitted.

Privacy Policy

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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BUREAU OF RESOURCE PROTECTION
DRINKING WATER PROGRAM
GUIDELINES ON DEICING CHEMICAL (ROAD SALT) STORAGE

Effective Date: December 19, 1997

Guideline No. DWSG97-1

Applicability: Applies to all parties storing road salt or other chemical deicing agents.

Supersedes: Fact Sheet: DEICING CHEMICAL (ROAD SALT) STORAGE (January 1996)

Approved by: Arleen O'Donnell, Asst. Commissioner for Resource Protection

PURPOSE: To summarize salt storage prohibition standards around drinking water supplies and current salt storage practices.


APPLICABILITY: These guidelines are issued on behalf of the Bureau of Resource Protection's Drinking Water Program. They apply to all parties storing road salt or other chemical deicing agents.

DEICING CHEMICAL (ROAD SALT) STORAGE

- I. **The Road Salt Problem:** Historically, there have been incidents in Massachusetts where improperly stored road salt has polluted public and private drinking water supplies. Recognizing the problem, state and local governments have taken steps in recent years to remediate impacted water supplies and to protect water supplies from future contamination. As a result of properly designing storage sheds, new incidents are uncommon. These guidelines summarize salt storage prohibition standards around drinking water supplies and current salt storage practices.
- II. **Salt Pile Restrictions in Water Supply Protection Areas:** Uncovered storage of salt is forbidden by Massachusetts General Law Chapter 85, section 7A in areas that would threaten water supplies. The Drinking Water Regulations, 310 CMR 22.21(2)(b), also restrict deicing chemical storage within wellhead protection areas (Zone I and Zone II)

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DEP on the World Wide Web: <http://www.state.ma.us/dep>

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for public water supply wells, as follows: "storage of sodium chloride, chemically treated abrasives or other chemicals used for the removal of ice and snow on roads [are prohibited], unless such storage is within a structure designed to prevent the generation and escape of contaminated runoff or leachate." For drinking water reservoirs, 310 CMR 22.20C prohibits, through local bylaw, uncovered or uncontained storage of road or parking lot de-icing and sanding materials within Zone A at new reservoirs and at those reservoirs increasing their withdrawals under MGL Chapter 21G, the Water Management Act.

For people on a low sodium diet, 20 mg/L of sodium in drinking water is consistent with the bottled water regulations' meaning of "sodium free." At 20 mg/L, sodium contributes 10% or less to the sodium level in people on a sodium restricted diet. For more information contact: Catherine Sarafinas, DEP Drinking Water Program, at 617-556-1070.

III. Salt Storage Best Management Practices (BMP): Components of an "environment-friendly" roadway deicing salt storage facility include:

- the right site = a flat site;
- adequate space for salt piles;
- storage on a pad (impervious/paved area);
- storage under a roof; and
- runoff collection/containment.

For more information, see The Salt Storage Handbook, 4th ed. Virginia: Salt Institute, 1987 (phone 703-549-4648).

IV. Salt Storage Practices of the Massachusetts Highway Department: The Massachusetts Highway Department (MHD) has 216 permanent salt storage sheds at 109 locations in the state. On leased land and state land under arteries and ramps, where the MHD cannot build sheds, salt piles are stored under impermeable material. This accounts for an additional 15 sites. The MHD also administers a program to assist municipalities with the construction of salt storage sheds. Of 351 communities, 201 municipalities have used state funds for salt storage facilities.

For more information contact Henry Barbaro, Massachusetts Highway Department, 10 Park Plaza, Boston, MA 02116 (phone 617-973-7419).



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BUREAU OF RESOURCE PROTECTION
SNOW DISPOSAL GUIDELINES

Effective Date: March 8, 2001

Guideline No. BRPG01-01

Applicability: Applies to all federal, state, regional and local agencies, as well as to private businesses.

Supersedes: BRP Snow Disposal Guideline BRPG97-1 issued 12/19/97, and all previous snow disposal guidance

Approved by: [SIGNED BY]
Glenn Haas, Assistant Commissioner
for Resource Protection

PURPOSE: To provide guidelines to all government agencies and private businesses regarding snow disposal site selection, site preparation and maintenance, and emergency snow disposal options that are acceptable to the Department of Environmental Protection, Bureau of Resource Protection.

APPLICABILITY: These Guidelines are issued by the Bureau of Resource Protection on behalf of all Bureau Programs (including Drinking Water Supply, Wetlands and Waterways, Wastewater Management, and Watershed Planning and Permitting). They apply to public agencies and private businesses disposing of snow in the Commonwealth of Massachusetts.

INTRODUCTION

Finding a place to dispose of collected snow poses a challenge to municipalities and businesses as they clear roads, parking lots, bridges, and sidewalks. While we are all aware of the threats to public safety caused by snow, collected snow that is contaminated with road salt, sand, litter, and automotive pollutants such as oil also threatens public health and the environment.

As snow melts, road salt, sand, litter, and other pollutants are transported into surface water or through the soil where they may eventually reach the groundwater. Road salt and other pollutants can contaminate water supplies and are toxic to aquatic life at certain levels. Sand washed into waterbodies can create sand

bars or fill in wetlands and ponds, impacting aquatic life, causing flooding, and affecting our use of these resources.

There are several steps that communities can take to minimize the impacts of snow disposal on public health and the environment. These steps will help communities avoid the costs of a contaminated water supply, degraded waterbodies, and flooding. Everything we do on the land has the potential to impact our water resources. Given the authority of local government over the use of the land, municipal officials and staff have a critically important role to play in protecting our water resources.

The purpose of these guidelines is to help municipalities and businesses select, prepare, and maintain appropriate snow disposal sites before the snow begins to accumulate through the winter.

RECOMMENDED GUIDELINES

These snow disposal guidelines address: (1) site selection; (2) site preparation and maintenance; and (3) emergency snow disposal.

1. SITE SELECTION

The key to selecting effective snow disposal sites is to locate them **adjacent to or on pervious surfaces in upland areas** away from water resources and wells. At these locations, the snow meltwater can filter in to the soil, leaving behind sand and debris which can be removed in the springtime. The following areas should be avoided:

- ^ Avoid dumping of snow into any waterbody, including rivers, the ocean, reservoirs, ponds, or wetlands. In addition to water quality impacts and flooding, snow disposed of in open water can cause navigational hazards when it freezes into ice blocks.
- ^ Do not dump snow within a Zone II or Interim Wellhead Protection Area (IWPA) of a public water supply well or within 75 feet of a private well, where road salt may contaminate water supplies.
- ^ Avoid dumping snow on DEP-designated high and medium-yield aquifers where it may contaminate groundwater (see the next page for information on ordering maps from MassGIS showing the locations of aquifers, Zone IIs, and IWPAs in your community).
- ^ Avoid dumping snow in sanitary landfills and gravel pits. Snow meltwater will create more contaminated leachate in landfills posing a greater risk to groundwater, and in gravel pits, there is little opportunity for pollutants to be filtered out of the meltwater because groundwater is close to the land surface.
- ^ Avoid disposing of snow on top of storm drain catch basins or in stormwater drainage swales or ditches. Snow combined with sand and debris may block a storm drainage system, causing localized flooding. A high volume of sand, sediment, and litter released from melting snow also may be quickly transported through the system into surface water.

Site Selection Procedures

It is important that the municipal Department of Public Works or Highway Department, Conservation Commission, and Board of Health work together to select appropriate snow disposal sites. The following steps should be taken:

- a) Estimate how much snow disposal capacity is needed for the season so that an adequate number of disposal sites can be selected and prepared.
- b) Identify sites that could potentially be used for snow disposal such as municipal open space (e.g., parking lots or parks).
- c) Sites located in upland locations that are not likely to impact sensitive environmental resources should be selected first.
- d) If more storage space is still needed, prioritize the sites with the least environmental impact (using the site selection criteria, and local or MassGIS maps as a guide).

MASSGIS Maps of Open Space and Water Resources

If local maps do not show the information you need to select appropriate snow disposal sites, you may order maps from MassGIS (Massachusetts Geographic Information System) which show publicly owned open spaces and approximate locations of sensitive environmental resources (locations should be field-verified where possible). Different coverages or map themes depicting sensitive environmental resources are available from MassGIS on the map you order. At a minimum, you should order the Priority Resources Map. The Priority Resources Map includes aquifers, public water supplies, DEP-approved Zone II's, Interim Wellhead Protection Areas, Wetlands, Open Space, Areas of Critical Environmental Concern, NHESP Wetlands Habitats, DEP Permitted Solid Waste facilities, Surface Water Protection areas (Zone A's) and base map features. The cost of this map is \$25.00. Other coverages or map themes you may consider, depending on the location of your city or town, include Outstanding Resource Waters and DEP Eelgrass Resources. These are available at \$25.00 each, with each map theme being depicted on a separate map. Maps should be ordered from MassGIS via the Internet at <http://www.state.ma.us/mgis>. Maps may also be ordered by fax at (617) 626-1249 (order form available from the MassGIS web site) or mail. For further information, contact MassGIS at (617) 626-1189.

2. SITE PREPARATION AND MAINTENANCE

In addition to carefully selecting disposal sites before the winter begins, it is important to prepare and maintain these sites to maximize their effectiveness. The following maintenance measures should be undertaken for all snow disposal sites:

- ^ A silt fence or equivalent barrier should be placed securely on the downgradient side of the snow disposal site.
- ^ To filter pollutants out of the meltwater, a 50-foot vegetative buffer strip should be maintained during the growth season between the disposal site and adjacent waterbodies.
- ^ Debris should be cleared from the site prior to using the site for snow disposal.

- ^ Debris should be cleared from the site and properly disposed of at the end of the snow season and no later than May 15.

3. EMERGENCY SNOW DISPOSAL

As mentioned earlier, it is important to estimate the amount of snow disposal capacity you will need so that an adequate number of upland disposal sites can be selected and prepared.

If despite your planning, upland disposal sites have been exhausted, snow may be disposed of near waterbodies. A vegetated buffer of at least 50 feet should still be maintained between the site and the waterbody in these situations. Furthermore, it is essential that the other guidelines for preparing and maintaining snow disposal sites be followed to minimize the threat to adjacent waterbodies.

Under extraordinary conditions, when all land-based snow disposal options are exhausted, disposal of snow that is **not obviously contaminated** with road salt, sand, and other pollutants may be allowed in certain waterbodies under certain conditions. **In these dire situations, notify your Conservation Commission and the appropriate DEP Regional Service Center before disposing of snow in a waterbody.**

Use the following guidelines in these emergency situations:

- ^ Dispose of snow in open water with adequate flow and mixing to prevent ice dams from forming.
- ^ Do not dispose of snow in saltmarshes, vegetated wetlands, certified vernal pools, shellfish beds, mudflats, drinking water reservoirs and their tributaries, Zone IIs or IWPA's of public water supply wells, Outstanding Resource Waters, or Areas of Critical Environmental Concern.
- ^ Do not dispose of snow where trucks may cause shoreline damage or erosion.
- ^ Consult with the municipal Conservation Commission to ensure that snow disposal in open water complies with local ordinances and bylaws.

FOR MORE INFORMATION

If you need more information, contact one of DEP's Regional Service Centers:

Northeast Regional Office, Wilmington, (978) 661-7677
Southeast Regional Office, Lakeville, (508) 946-2714
Central Regional Office, Worcester, (508) 792-7683
Western Regional Office, Springfield, (413) 755-2214

or

Call Thomas Maguire of DEP's Bureau of Resource Protection in Boston, at (617) 292-5602.

CAR WASH WASTE DISPOSAL REQUIREMENTS
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

In Massachusetts, car wash wastewater is considered to be an industrial waste consisting of oil and grease, surfactants, chlorides, solids, and possibly organic compounds. It is the responsibility of the car wash owner to treat and dispose of this type of wastewater properly and in accordance with the requirements of the Department of Environmental Protection (DEP). The DEP's Watershed Permitting Group regulates the disposal of car wash wastewater under its regulations codified at 314 CMR. Failure to properly dispose of car wash wastewater is a violation of the Massachusetts Clean Water Act (M.G.L. c.21 s.43), which carries a maximum penalty of \$25,000 per violation.

There are a number of methods for the disposal of car wash wastes, some of which require approval by the DEP. The most common method is a sewer connection where the wastewater is discharged into a municipal sewer system for treatment at the municipal plant. The municipality must approve the sewer connection. Some municipalities require that the wastewater be pretreated prior to discharge to remove oil and grease. This would require the car wash to install an oil/water separator and have the oil removed and disposed of regularly by a properly licensed hauler. Please be advised, at this time DEP is not requiring the submittal of sewer connection applications for car wash discharges. However, these discharges are required to comply with 314 CMR 12.00 – Operation and Maintenance Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers, and, 257 CMR 2.00 – Certification of Operators of Wastewater Treatment facilities.

Another common disposal method is to collect the wastewater in a holding tank. The holding tank is then pumped periodically and the wastewater transported to an approved treatment facility by a properly licensed hauler. At this time, DEP approval for the installation of a holding tank at a car wash facility is not required unless the system utilizes an innovative/alternative component, or otherwise has an on-site discharge.

Two other disposal methods are to discharge the wastewater either to surface water or to the groundwater. Both of these options require the car wash to obtain a discharge permit from DEP. Generally, an issued permit limits the amount of pollutants being discharged and requires monitoring of the quality and quantity of the discharge to ensure compliance with the permit limits and the Massachusetts Groundwater or Surface Water Quality Standards. Surface water discharge permits require both state (DEP) and federal (EPA) approval. Groundwater discharge permits require only DEP approval. Both types of discharges would require the installation of a wastewater treatment system in order to meet the discharge permit limits. Also, grits and solids removed by the treatment system would have to be disposed of separately in a manner approved by DEP.

Please be advised DEP regulations prohibit the disposal of car wash wastewater into septic systems due to the inability to treat the industrial wastewater adequately as well as the effect this type of wastewater may have on such systems. Septic systems are regulated separately under Title 5 of the State Environmental Code (310 CMR 15.000), and may be used only for the disposal of sanitary wastewater.

For more information on car wash waste disposal please contact Marybeth Costello at the Massachusetts DEP at (617) 556-1029.